CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION

2375 Northside Drive. Suite 100, San Diego, CA 92108
(619) 516-1990 • Fax (619) 516-1994
http://www.waterboards.ca.gov/sandiego/

ORDER NO. R9-2018-0059
NPDES NO. CA0107395

WASTE DISCHARGE REQUIREMENTS FOR THE ENCINA WASTEWATER AUTHORITY ENCINA WATER POLLUTION CONTROL FACILITY AND SATELLITE WASTEWATER TREATMENT PLANTS DISCHARGE TO THE PACIFIC OCEAN THROUGH THE ENCINA OCEAN OUTFALL

The following Discharger is subject to waste discharge requirements (WDRs) set forth in this Order:

Table 1. Discharger Information

Discharger	Encina Wastewater Authority (EWA)	
Name of Facility	Encina Ocean Outfall (EOO)	
Facility Address	Encina Water Pollution Control Facility (EWPCF)	6200 Avenida Encinas Carlsbad, CA 92011-1095
	Meadowlark Water Reclamation Plant (MWRP)	7941 Corintia Street Carlsbad, CA 92009
	Carlsbad Water Reclamation Facility (CWRF)	6220 Avenida Encinas Carlsbad, CA 92011

Table 2. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude (North)	Discharge Point Longitude (West)	Receiving Water
001	Secondary- and tertiary-treated wastewater, and waste brine	33° 06' 33.59"	117° 20' 52.77"	Pacific Ocean

Table 3. Administrative Information

This Order was adopted on:	**September 12, 2018**
This Order shall become effective on:	**November 1, 2018**
This Order shall expire on:	**October 31, 2023**
The Discharger shall file a Report of Waste Discharge (ROWD) as an application for reissuance of WDRs in accordance with title 23, California Code of Regulations (CCR), and an application for reissuance of a National Pollutant Discharge Elimination System (NPDES) permit no later than:	**180 days prior to the Order expiration date**
The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, San Diego Region have classified this discharge as follows	**Major**

I, David W. Gibson, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of the Order adopted by the California Regional Water Quality Control Board, San Diego Region, on the date indicated above.

David W. Gibson, Executive Officer

CONTENTS

TABLES

ATTACHMENTS

I. FACILITY INFORMATION

Information describing the Encina Water Pollution Control Facility (EWPCF), the Meadowlark Water Reclamation Plant (MWRP), the Carlsbad Water Reclamation Facility (CWRF), the land outfall for the MWRP, and the Encina Ocean Outfall (EOO) (collectively referred to as the Facilities) is summarized in Table 1 and in sections I and II of the Fact Sheet (Attachment F). Section I of the Fact Sheet also includes information regarding the Encina Wastewater Authority's (EWA's or Discharger's) permit application.

II. FINDINGS

The California Regional Water Quality Control Board, San Diego Region (San Diego Water Board), finds:

A. **Legal Authorities.** This Order serves as WDRs pursuant to article 4, chapter 4, division 7 of the California Water Code (Water Code) (commencing with section 13260). This Order is also issued pursuant to section 402 of the federal Clean Water Act (CWA) and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the Water Code (commencing with section 13370). This Order shall serve as an NPDES permit authorizing the Discharger to discharge into waters of the U.S. at the discharge location described in Table 2 subject to the WDRs in this Order.

B. **Background and Rationale for Requirements.** The San Diego Water Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and other available information. The Fact Sheet (Attachment F), which contains background information and rationale for the requirements in this Order, is hereby incorporated into and constitutes Findings for this Order. Attachments A through E, G, and H are also incorporated into this Order.

C. **Provisions and Requirements Implementing State Law.** The provisions/requirements in subsections IV.B, IV.C, and V.B, VI.A.2.a, VI.C.1.b, VI.C.1.c, and VI.C.4.a-d are included to implement State law only. These provisions/requirements are not required or authorized under the federal CWA; consequently, violations of these provisions/requirements are not subject to the enforcement remedies that are available for NPDES violations.

D. **Executive Officer Delegation of Authority.** The San Diego Water Board by prior resolution has delegated all matters that may legally be delegated to its Executive Officer to act on its behalf pursuant to Water Code section 13223. Therefore, the Executive Officer is authorized to act on the San Diego Water Board's behalf on any matter within this Order unless such delegation is unlawful under Water Code section 13223 or this Order explicitly states otherwise.

E. **Notification of Interested Parties.** The San Diego Water Board has notified the Discharger and interested agencies and persons of its intent to prescribe WDRs for the discharge and has provided them with an opportunity to submit their written comments and recommendations. The San Diego Water Board has also provided an opportunity for the Discharger and interested agencies and persons to submit oral comments and recommendations at a public hearing. Details of the notification are provided in the Fact Sheet (Attachment F).

F. **Consideration of Public Comment.** The San Diego Water Board, in a public meeting, heard and considered all comments pertaining to the discharge. Details of the Public Hearing are provided in the Fact Sheet.

THEREFORE, IT IS HEREBY ORDERED, that this Order supersedes Order No. R9-2011-0019 except for enforcement purposes, and, in order to meet the provisions contained in division 7 of the Water Code (commencing with section 13000) and regulations adopted thereunder, and the provisions of the CWA and regulations and guidelines adopted thereunder, the Discharger shall comply with the requirements in this Order. The Discharger is hereby authorized to discharge subject to WDRs in this Order at the discharge location described in Table 2 to the Pacific Ocean off the coast of San Diego County. If any part of this Order is subject to a temporary stay of enforcement, unless otherwise specified in the order granting stay, the Discharger shall comply with the analogous portions of Order No. R9-2011-0019. This action in no way prevents the San Diego Water Board from taking enforcement action for past violations of Order No. R9-2011-0019.

III. DISCHARGE PROHIBITIONS

A. The discharge of waste from the EWPCF and the MWRP not treated by a secondary treatment process and not in compliance with the effluent limitations specified in section IV.A of this Order, and/or to a location other than Discharge Point No. 001, unless specifically regulated by this Order or separate WDRs, is prohibited.

B. The discharge of waste from the CWRF not in compliance with the effluent limitations specified in section IV.A of this Order, and/or to a location other than Discharge Point No. 001, unless specifically regulated by this Order or separate WDRs, is prohibited.

C. The Discharger must comply with *Water Quality Control Plan for Ocean Waters of California, California Ocean Plan* (Ocean Plan) Discharge Prohibitions, incorporated into this Order as if fully set forth herein and summarized in Attachment G, as a condition of this Order.

D. The Discharger must comply with Discharge Prohibitions contained in chapter 4 of the *Water Quality Control Plan for the San Diego Basin* (Basin Plan), incorporated into this Order as if fully set forth herein and summarized in Attachment G, as a condition of this Order.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations and Performance Goals – Discharge Point No. 001

1. Effluent Limitations – Discharge Point No. 001

a. The Discharger shall maintain compliance with the following effluent limitations for the EWPCF, with compliance measured at Monitoring Location M-001, as described in the Monitoring and Reporting Program (MRP, Attachment E):

Table 4. EPWCF Effluent Limitations at M-001[1]

Parameter	Units	Effluent Limitations[2,3]			
		Average Monthly	Average Weekly	Instantaneous Minimum	Instantaneous Maximum
Flow	million gallons per day (MGD)	40.5	--	--	--
Carbonaceous Biochemical Oxygen Demand 5-day @ 20 degrees Celsius (°C) ($CBOD_5$)	milligram per liter (mg/L)	25	40	--	--
	pounds per day (lbs/day)	8,400	14,000	--	--
	% Removal	≥85	--	--	--
Total Suspended Solids(TSS)	mg/L	30	45	--	--
	lbs/day	10,000	15,000	--	--
	% Removal	≥85	--	--	--
Oil and Grease	mg/L	25	40	--	75
	lbs/day	8,400	14,000	--	25,000
Settleable Solids	milliliter per liter (ml/L)	1.0	1.5	--	3.0
Turbidity	nephelometric turbidity unit (NTU)	75	100	--	225
pH	standard units	--	--	6.0	9.0

[1] See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

[2] Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation, a value of 6.1E-02 represents 6.1×10^{-2} or 0.061, 6.1E+02 represents 6.1×10^{2} or 610, and 6.1E+00 represents 6.1×10^{0} or 6.1.

[3] The mass emission rate (MER) limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the EWPCF (40.5 MGD) and C is the concentration (mg/L).

b. The Discharger shall maintain compliance with the following effluent limitations for the MWRP, with compliance measured at Monitoring Location M-002, as described in the MRP, Attachment E:

Table 5. MWRP Effluent Limitations at M-002[1]

Parameter	Units	Effluent Limitations[2,3]				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	--	--	5	--	--
$CBOD_5$	mg/L	25	40	--	--	--
	lbs/day	1,000	1,700	--	--	--
	% Removal	≥85	--	--	--	--
TSS	mg/L	30	45	--	--	--
	lbs/day	1,300	1,900	--	--	--
	% Removal	≥85	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75
	lbs/day	1,000	1,700	--	--	3,100
Settleable Solids	ml/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	--	225
pH	standard units	--	--	--	6.0	9.0

[1] See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

[2] Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation, a value of 6.1E-02 represents 6.1×10^{-2} or 0.061, 6.1E+02 represents 6.1×10^{2} or 610, and 6.1E+00 represents 6.1×10^{0} or 6.1.

[3] The MER limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the MWRP (5 MGD) and C is the concentration (mg/L).

c. The Discharger shall maintain compliance with the following effluent limitations for the CWRF, with compliance measured at Monitoring Location M-005, as described in the MRP, Attachment E:

Table 6. CWRF Effluent Limitations at M-005[1]

Parameter	Units	Effluent Limitations				
		Average Monthly	Average Weekly	Maximum Daily	Instantaneous Minimum	Instantaneous Maximum
Flow	MGD	--	--	0.2	--	--
Total Suspended Solids	mg/L	60	--	--	--	--
	lbs/day	100	--	--	--	--
Oil and Grease	mg/L	25	40	--	--	75
	lbs/day	42	67	--	--	125
Settleable Solids	ml/L	1.0	1.5	--	--	3.0
Turbidity	NTU	75	100	--	--	225
pH	standard units	--	--	--	6.0	9.0

[1] See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

[2] Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation, a value of 6.1E-02 represents 6.1×10^{-2} or 0.061, 6.1E+02 represents 6.1×10^{2} or 610, and 6.1E+00 represents 6.1×10^{0} or 6.1.

[3] The MER limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the CWRF (0.2 MGD) and C is the concentration (mg/L).

d. The Discharger shall maintain compliance with the following effluent limitations for the combined flow from the EWPCF, the MWRP, and the CWRF at Discharge Point No. 001, with compliance measured at Monitoring Location M-004, as described in the MRP (Attachment E):

Table 7. Effluent Limitations at Discharge Point No. 001 (M-004)[1]

Parameter	Units	Effluent Limitations[2,3]			
		6-Month Median	Average Monthly	Maximum Daily	Instantaneous Minimum
Flow	MGD	--	[4]	--	--
Total Chlorine Residual[5]	microgram per liter (µg/L)	2.9E+02	--	1.2E+03	8.7E+03
	lbs/day	1.0E+02	--	4.2E+02	3.1E+03
Chronic Toxicity[6,7]	"Pass" / "Fail"	--	--	"Pass"	--

[1] See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

[2] Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and

positive numbers after the "E" indicate that the value is greater than 1. In this notation a value of 6.1E-02 represents 6.1 x 10^{-2} or 0.061, 6.1E+02 represents 6.1 x 10^{2} or 610, and 6.1E+00 represents 6.1 x 10^{0} or 6.1.

[3] The MER limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the EOO (43.3 MGD) and C is the concentration (mg/L).

[4] During dry-weather months (May to October) the calendar-monthly average flow rate shall not exceed 43.3 MGD. During wet-weather months (November to April) the calendar-monthly average flow rate shall not exceed 52.6 MGD.

[5] The water quality objectives for total chlorine residual applicable to intermittent discharges not exceeding two hours, shall be determined through the use of the following equation:

log y = 0.43 (log x) + 1.8,

where

y = The water quality objective (in ug/l) to apply when chlorine is being discharged.

x = The duration of uninterrupted chlorine discharge in minutes.

Actual effluent limitations for total chlorine, when discharging intermittently, shall then be determined according to Implementation Procedures for Table B from the Ocean Plan, using a minimum probable initial dilution factor of 144 and a flow rate of 43.3 MGD.
If the water quality objectives and effluent limitations for total chlorine residual are calculated using the above produces, the calculations shall be included in the Self-Monitoring Report (SMR) as an attachment.

[6] As specified in section VII.L of this Order and section III.C of the MRP (Attachment E).

[7] The chronic toxicity effluent limitation is protective of both the numeric acute and chronic toxicity 2015 Ocean Plan water quality objectives. The effluent limitation will be implemented using *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995); current *USEPA guidance in the National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, June 2010) (https://www3.epa.gov/npdes/pubs/wet_final_tst_implementation2010.pdf); and USEPA Regions 8, 9, and 10, Toxicity Training Tool (January 2010).

2. Performance Goals

Parameters that do not have reasonable potential to cause or contribute to an exceedance of water quality objectives, or for which reasonable potential to cause or contribute to an exceedance of water quality objectives cannot be determined, are referred to as performance goal parameters and are assigned the performance goals listed in Table 8. Performance goal parameters shall be monitored at Monitoring Location M-004, as described in the MRP (Attachment E). The San Diego Water Board will use the results for informational purposes only, not compliance determinations. The performance goals in Table 8 are not water quality-based effluent limitations (WQBELs) and are not enforceable, as such.

Table 8. Performance Goals[1]

Parameter	Unit	Performance Goals[2,3]			
		6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
OBJECTIVES FOR PROTECTION OF MARINE AQUATIC LIFE					
Arsenic, Total Recoverable	µg/L	7.3E+02	--	4.2E+03	1.1E+04
	lbs/day	2.6E+02	--	1.5E+03	4.0E+03
Cadmium, Total Recoverable	µg/L	1.5E+02	--	5.8E+02	1.5E+03
	lbs/day	5.2E+01	--	2.1E+02	5.2E+02
Chromium (VI), Total Recoverable[4]	µg/L	2.9E+02	--	1.2E+03	2.9E+03
	lbs/day	1.0E+02	--	4.2E+02	1.0E+03
Copper, Total Recoverable	µg/L	1.5E+02	--	1.5E+03	4.1E+03
	lbs/day	5.3E+01	--	5.2E+02	1.5E+03

Parameter	Unit	Performance Goals[2,3]			
		6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Lead, Total Recoverable	µg/L	2.9E+02	--	1.2E+03	2.9E+03
	lbs/day	1.0E+02	--	4.2E+02	1.0E+03
Mercury, Total Recoverable	µg/L	5.7E+00	--	2.3E+01	5.8E+01
	lbs/day	2.1E+00	--	8.4E+00	2.1E+01
Nickel, Total Recoverable	µg/L	7.3E+02	--	2.9E+03	7.3E+03
	lbs/day	2.6E+02	--	1.0E+03	2.6E+03
Selenium, Total Recoverable	µg/L	2.2E+03	--	8.7E+03	2.2E+04
	lbs/day	7.9E+02	--	3.1E+03	7.9E+03
Silver, Total Recoverable	µg/L	7.8E+01	--	3.8E+02	9.9E+02
	lbs/day	2.8E+01	--	1.4E+02	3.6E+02
Zinc, Total Recoverable	µg/L	1.7E+03	--	1.0E+04	2.8E+04
	lbs/day	6.3E+02	--	3.8E+03	1.0E+04
Cyanide, Total	µg/L	1.5E+02	--	5.8E+02	1.5E+03
	lbs/day	5.2E+01	--	2.1E+02	5.2E+02
Ammonia, Total (as N)	µg/L	8.7E+04	--	3.5E+05	8.7E+05
	lbs/day	3.1E+04	--	1.3E+05	3.1E+05
Phenolic Compounds (non-chlorinated)[1]	µg/L	4.4E+03	--	1.7E+04	4.4E+04
	lbs/day	1.6E+03	--	6.3E+03	1.6E+04
Chlorinated Phenolics[1]	µg/L	1.5E+02	--	5.8E+02	1.5E+03
	lbs/day	5.2E+01	--	2.1E+02	5.2E+02
Endosulfan[1]	µg/L	1.3E+00	--	2.6E+00	3.9E+00
	lbs/day	4.7E-01	--	9.4E-01	1.4E+00
Endrin	µg/L	2.9E-01	--	5.8E-01	8.7E-01
	lbs/day	1.0E-01	--	2.1E-01	3.1E-01
HCH (BHC)[1]	µg/L	5.8E-01	--	1.2E+00	1.7E+00
	lbs/day	2.1E-01	--	4.2E-01	6.3E-01
Radioactivity	picocuries per liter (pCi/L)	Not to exceed limits specified in title 17, division 1, chapter 5, subchapter 4, group 3, article 3, section 30253 of the CCR, reference to section 30253 is prospective, including future changes to any incorporated provisions of federal law, as the changes take effect.			
OBJECTIVES FOR PROTECTION OF HUMAN HEALTH – NONCARCINOGENS					
Acrolein	µg/L	--	3.2E+04	--	--
	lbs/day	--	1.2E+04	--	--
Antimony	µg/L	--	1.7E+05	--	--
	lbs/day	--	6.3E+04	--	--
Bis(2-chloroethoxy) Methane	µg/L	--	6.4E+02	--	--
	lbs/day	--	2.3E+02	--	--

Parameter	Unit	Performance Goals[2,3]			
		6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Bis(2-chloroisopropyl) Ether	µg/L	--	1.7E+05	--	--
	lbs/day	--	6.3E+04	--	--
Chlorobenzene	µg/L	--	8.3E+04	--	--
	lbs/day	--	3.0E+04	--	--
Chromium (III), Total Recoverable[4]	µg/L	--	2.8E+07	--	--
	lbs/day	--	9.9E+06	--	--
Di-n-butyl Phthalate	µg/L	--	5.1E+05	--	--
	lbs/day	--	1.8E+05	--	--
Dichlorobenzenes[1]	µg/L	--	7.4E+05	--	--
	lbs/day	--	2.7E+05	--	--
Diethyl Phthalate	µg/L	--	4.8E+06	--	--
	lbs/day	--	1.7E+06	--	--
Dimethyl Phthalate	µg/L	--	1.2E+08	--	--
	lbs/day	--	4.3E+07	--	--
4,6-dinitro-2-methylphenol	µg/L	--	3.2E+04	--	--
	lbs/day	--	1.2E+04	--	--
2,4-dinitrophenol	µg/L	--	5.8E+02	--	--
	lbs/day	--	2.1E+02	--	--
Ethylbenzene	µg/L	--	5.9E+05	--	--
	lbs/day	--	2.1E+05	--	--
Fluoranthene	µg/L	--	2.2E+03	--	--
	lbs/day	--	7.9E+02	--	--
Hexachlorocyclopentadiene	µg/L	--	8.4E+03	--	--
	lbs/day	--	3.0E+03	--	--
Nitrobenzene	µg/L	--	7.1E+02	--	--
	lbs/day	--	2.6E+02	--	--
Thallium, Total Recoverable	µg/L	--	2.9E+02	--	--
	lbs/day	--	1.0E+02	--	--
Toluene	µg/L	--	1.2E+07	--	--
	lbs/day	--	4.5E+06	--	--
Tributyltin	µg/L	--	2.0E-01	--	--
	lbs/day	--	7.3E-02	--	--
1,1,1-trichloroethane	µg/L	--	7.8E+07	--	--
	lbs/day	--	2.8E+07	--	--
OBJECTIVES FOR PROTECTION OF HUMAN HEALTH – CARCINOGENS					

Parameter	Unit	Performance Goals[2,3]			
		6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Acrylonitrile	µg/L	--	1.5E+01	--	--
	lbs/day	--	5.2E+00	--	--
Aldrin	µg/L	--	3.2E-03	--	--
	lbs/day	--	1.2E-03	--	--
Benzene	µg/L	--	8.6E+02	--	--
	lbs/day	--	3.1E+02	--	--
Benzidine	µg/L	--	1.0E-02	--	--
	lbs/day	--	3.6E-03	--	--
Beryllium, Total Recoverable	µg/L	--	4.8E+00	--	--
	lbs/day	--	1.7E+00	--	--
Bis(2-chloroethyl) Ether	µg/L	--	6.5E+00	--	--
	lbs/day	--	2.4E+00	--	--
Bis(2-ethlyhexyl) Phthalate	µg/L	--	5.1E+02	--	--
	lbs/day	--	1.8E+02	--	--
Carbon Tetrachloride	µg/L	--	1.3E+02	--	--
	lbs/day	--	4.7E+01	--	--
Chlordane[1]	µg/L	--	3.3E-03	--	--
	lbs/day	--	1.2E-03	--	--
Chlorodibromomethane (Dibromochloromethane)	µg/L	--	1.2E+03	--	--
	lbs/day	--	4.5E+02	--	--
Chloroform	µg/L	--	1.9E+04	--	--
	lbs/day	--	6.8E+03	--	--
Dichlorodiphenyltrichloroethane (DDT)[1]	µg/L	--	2.5E-02	--	--
	lbs/day	--	8.9E-03	--	--
1,4-dichlorobenzene	µg/L	--	2.6E+03	--	--
	lbs/day	--	9.4E+02	--	--
3,3'-dichlorobenzidine	µg/L	--	1.2E+00	--	--
	lbs/day	--	4.2E-01	--	--
1,2-dichloroethane	µg/L	--	4.1E+03	--	--
	lbs/day	--	1.5E+03	--	--
1,1-dichloroethylene	µg/L	--	1.3E+02	--	--
	lbs/day	--	4.7E+01	--	--
Dichlorobromomethane	µg/L	--	9.0E+02	--	--
	lbs/day	--	3.2E+02	--	--
Dichloromethane (Methylene Chloride)	µg/L	--	6.5E+04	--	--
	lbs/day	--	2.4E+04	--	--
1,3-dichloropropene (1,3-Dichloropropylenes)	µg/L	--	1.3E+03	--	--
	lbs/day	--	4.7E+02	--	--

Parameter	Unit	Performance Goals[2,3]			
		6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Dieldrin	µg/L	--	5.8E-03	--	--
	lbs/day	--	2.1E-03	--	--
2,4-dinitrotoluene	µg/L	--	3.8E+02	--	--
	lbs/day	--	1.4E+02	--	--
1,2-diphenylhydrazine	µg/L	--	2.3E+01	--	--
	lbs/day	--	8.4E+00	--	--
Halomethanes[1]	µg/L	--	1.9E+04	--	--
	lbs/day	--	6.8E+03	--	--
Heptachlor	µg/L	--	7.3E-03	--	--
	lbs/day	--	2.6E-03	--	--
Heptachlor Epoxide	µg/L	--	2.9E-03	--	--
	lbs/day	--	1.0E-03	--	--
Hexachlorobenzene	µg/L	--	3.0E-02	--	--
	lbs/day	--	1.1E-02	--	--
Hexachlorobutadiene	µg/L	--	2.0E+03	--	--
	lbs/day	--	7.3E+02	--	--
Hexachloroethane	µg/L	--	3.6E+02	--	--
	lbs/day	--	1.3E+02	--	--
Isophorone	µg/L	--	1.1E+05	--	--
	lbs/day	--	3.8E+04	--	--
N-nitrosodimethylamine	µg/L	--	1.1E+03	--	--
	lbs/day	--	3.8E+02	--	--
N-nitrosodi-N-propylamine	µg/L	--	5.5E+01	--	--
	lbs/day	--	2.0E+01	--	--
N-nitrosodiphenylamine	µg/L	--	3.6E+02	--	--
	lbs/day	--	1.3E+02	--	--
Polynuclear Aromatic Hydrocarbons (PAHs)[1]	µg/L	--	1.3E+00	--	--
	lbs/day	--	4.6E-01	--	--
Polychlorinated Biphenyls (PCBs)[1]	µg/L	--	2.8E-03	--	--
	lbs/day	--	9.9E-04	--	--
TCDD equivalents[1]	µg/L	--	5.7E-07	--	--
	lbs/day	--	2.0E-07	--	--
1,1,2,2-tetrachloroethane	µg/L	--	3.3E+02	--	--
	lbs/day	--	1.2E+02	--	--
Tetrachloroethylene (Tetrachloroethene)	µg/L	--	2.9E+02	--	--
	lbs/day	--	1.0E+02	--	--
Toxaphene	µg/L	--	3.0E-02	--	--
	lbs/day	--	1.1E-02	--	--

Parameter	Unit	Performance Goals[2,3]			
		6-Month Median	Average Monthly	Maximum Daily	Instantaneous Maximum
Trichloroethylene	µg/L	--	3.9E+03	--	--
	lbs/day	--	1.4E+03	--	--
1,1,2-trichloroethane	µg/L	--	1.4E+03	--	--
	lbs/day	--	4.9E+02	--	--
2,4,6-trichlorophenol	µg/L	--	4.2E+01	--	--
	lbs/day	--	1.5E+01	--	--
Vinyl Chloride	µg/L	--	5.2E+03	--	--
	lbs/day	--	1.9E+03	--	--

[1] See Attachment A for definitions of abbreviations and a glossary of common terms used in this Order.

[2] Scientific "E" notation is used to express certain values. In scientific "E" notation, the number following the "E" indicates that position of the decimal point in the value. Negative numbers after the "E" indicate that the value is less than 1, and positive numbers after the "E" indicate that the value is greater than 1. In this notation a value of 6.1 E-02 represents 6.1×10^{-2} or 0.061, 6.1E+02 represents 6.1×10^{2} or 610, and 6.1E+00 represents 6.1×10^{0} or 6.1.

[3] The MER limitation, in lbs/day, was calculated based on the following equation: MER (lbs/day) = 8.34 x Q x C, where Q is the permitted flow for the EOO (43.3 MGD) and C is the concentration (mg/L).

[4] Dischargers may, at their option, apply this performance goal as a total chromium performance goal.

B. Land Discharge Specifications – Not Applicable

C. Recycling Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Surface Water Limitation

The receiving water limitations set forth below for ocean waters are based on water quality objectives contained in the Basin Plan and Ocean Plan and are a required part of this Order. The discharge of waste shall not cause or contribute to violation of these limitations in the Pacific Ocean. Compliance with these limitations shall be determined from samples collected at stations representative of the area outside of the zone of initial dilution (ZID).

1. Bacterial Characteristics

a. Within a zone bounded by the shoreline and a distance of three nautical miles from the shoreline, including all kelp beds, the following bacterial objectives shall be maintained throughout the water column. The ZID for the ocean outfall is excluded.

i. 30-day Geometric Mean – The following standards are based on the geometric mean of the five most recent samples from each site:

(a) Total coliform density (colony forming units, CFU) shall not exceed 1,000 per 100 milliliter (ml);

(b) Fecal coliform density (CFU) shall not exceed 200 per 100 mL; and

(c) Enterococcus density (CFU) shall not exceed 35 per 100 mL.

ii. Single Sample Maximum:

(a) Total coliform density (CFU) shall not exceed 10,000 per 100 mL;

(b) Fecal coliform density (CFU) shall not exceed 400 per 100 mL;

(c) Enterococcus density (CFU) shall not exceed 104 per 100 mL; and

(d) Total coliform density (CFU) shall not exceed 1,000 per 100 mL when the fecal coliform/total coliform ratio exceeds 0.1.

b. The ZID of any wastewater outfall shall be excluded from designation as kelp beds for purposes of bacterial standards. Adventitious assemblages of kelp plants on waste discharge structures (e.g., outfall pipes and diffusers) do not constitute kelp beds for purposes of bacterial standards.

c. At all areas where shellfish may be harvested for human consumption, as determined by the San Diego Water Board, the median total coliform density (CFU) shall not exceed 70 per 100 ml throughout the water column, and not more than 10 percent of the samples shall exceed 230 per 100 ml.

2. Physical Characteristics

a. Floating particulates and grease and oils shall not be visible.

b. The discharge of waste shall not cause aesthetically undesirable discoloration of the ocean surface.

c. Natural light shall not be significantly reduced at any point outside the initial dilution zone as a result of the discharge of waste.

d. The rate of deposition of inert solids and the characteristics of inert solids in the ocean sediments shall not be changed such that benthic communities are degraded.

e. Trash shall not be present in ocean waters, along shorelines or adjacent areas in amounts that adversely affect beneficial uses or cause nuisance.

3. Chemical Characteristics

a. The dissolved oxygen concentration shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.

b. The pH shall not be changed at any time more than 0.2 units from that which occurs naturally.

c. The dissolved sulfide concentration of waters in and near sediments shall not be significantly increased above that present under natural conditions.

d. The concentration of substances set forth in chapter II, Table 1 of the Ocean Plan, shall not be increased in marine sediments to levels that would degrade indigenous biota.

e. The concentration of organic materials in marine sediments shall not be increased to levels that would degrade marine life.

f. Nutrient materials shall not cause objectionable aquatic growths or degrade indigenous biota.

g. Numerical water quality objectives established in chapter II, Table 1 of the Ocean Plan apply to all discharges within the jurisdiction of the Ocean Plan. Unless otherwise specified, all metal concentrations are expressed as total recoverable concentrations.

4. Biological Characteristics

a. Marine communities, including vertebrate, invertebrate, and plant species, shall not be degraded.

b. The natural taste, odor, color of fish, shellfish, or other marine resources used for human consumption shall not be altered.

c. The concentration of organic materials in fish, shellfish, or other marine resources used for human consumption shall not bioaccumulate to levels that are harmful to human health.

5. Radioactivity

Discharge of radioactive waste shall not degrade marine life.

B. Groundwater Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. **Federal Standard Provisions.** The Discharger shall comply with all Standard Provisions included in Attachment D of this Order.

2. **San Diego Water Board Standard Provisions.** The Discharger shall comply with the following provisions. In the event that there is any conflict, duplication, or overlap between provisions specified by this Order, the more stringent provision shall apply.

   a. The Facilities shall be supervised and operated by persons possessing certificates of appropriate grade pursuant to title 23, division 3, chapter 26 of the CCR. The Facilities shall be provided with a sufficient number of qualified personnel to operate the Facilities effectively so as to achieve the required level of treatment at all times.

   b. The expiration date of this Order is contained in Table 3 of this Order. After the expiration date, the terms and conditions of this Order are automatically continued pending issuance of a new permit, provided that all requirements of USEPA's NPDES regulations at title 40 of the Code of Federal Regulations (40 CFR) section 122.6 and the State's regulations at title 23, division 3, chapter 9, article 3, section 2235.4 of the CCR regarding the continuation of expired permits and WDRs are met.

   c. A copy of this Order shall be posted at a prominent location and shall be available to site personnel, San Diego Water Board, State Water Resources Control Board (State Water Board), and USEPA or their authorized representative at all times.

B. Monitoring and Reporting Program (MRP) Requirements

1. The Discharger shall comply with the MRP, and future revisions thereto, in Attachment E of this Order.

2. Notifications required to be provided under this Order to the San Diego Water Board shall be made to:

   E-mail – SanDiego@waterboards.ca.gov, or
   Telephone – (619) 516-1990, or
   Facsimile – (619) 516-1994.

C. Special Provisions

1. Reopener Provisions

a. This Order may be reopened for modification to include an effluent limitation if monitoring establishes that the discharge causes, has the reasonable potential to cause, or contributes to an excursion above a performance goal(s) set forth in section IV.A.2, Table 8, of this Order or as otherwise described in Table 1 of the Ocean Plan. (40 CFR section 122.44(d)(1))

b. This Order may be reopened for modification of the monitoring and reporting requirements and/or special studies requirements, at the discretion of the San Diego Water Board. Such modification(s) may include, but is (are) not limited to, revision(s) (i) to implement recommendations from Southern California Coastal Water Research Project (SCCWRP); (ii) to develop, refine, implement, and/or coordinate a regional monitoring program; (iii) to develop and implement improved monitoring and assessment programs in keeping with San Diego Water Board Resolution No. R9 2012-0069, *Resolution in Support of a Regional Monitoring Framework*; and/or (iv) to add provisions to require the Discharger to evaluate and provide information on cost and values of the MRP (Attachment E).

c. This Order may be modified, revoked and reissued, or terminated for cause in accordance with the provisions of 40 CFR parts 122, 124, and 125 at any time prior to its expiration under any of the following circumstances:

   i. Violation of any terms or conditions of this Order. (Water Code section 13381(a));

   ii. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts. (Water Code section 13381(b)); and

   iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge. (Water Code section 13381(c)).

d. The filing of a request by the Discharger for modifications, revocation and reissuance, or termination of this Order does not stay any condition of this Order. Notification by the Discharger of planned operational or facility changes, or anticipated noncompliance with this Order does not stay any condition of this Order. (40 CFR section 122.41(f))

e. If any applicable toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under CWA section 307(a) for a toxic pollutant and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the San Diego Water Board may institute proceedings under these regulations to modify or revoke and reissue this Order to conform to the toxic effluent standard or prohibition. (40 CFR section 122.44(b)(1))

f. This Order may be reopened and modified for consistency with any new water quality control plan, policy, law, or regulation. (40 CFR section 122.62(a)(3).)

g. This Order may be reopened and modified to revise effluent limitations as a result of future Ocean Plan, Basin Plan, and/or other statewide Water Quality Control Plan amendments; or the adoption of a total maximum daily load (TMDL) for the receiving water. (40 CFR section 122.62(a)(2))

h. This Order may be reopened upon submission by the Discharger of adequate information, as determined by the San Diego Water Board, to provide for dilution credits or a mixing zone, as may be appropriate. (40 CFR section 122.62(a)(2))

i. This Order may also be reopened and modified, revoked and reissued, or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, and 125.62. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this Order, and endangerment to human health or the environment resulting from the permitted activity.

j. The mass emission performance goals, contained in section IV.A.2 of this Order, may be re-evaluated and modified during this Order term, or this Order may be modified to incorporate WQBELs, in accordance with the requirements set forth at 40 CFR sections 122.62 and 124.5.

2. Special Studies, Technical Reports, and Additional Monitoring Requirements

a. Spill Prevention and Response Plans

i. For purposes of this section of the Order, a spill is a discharge that occurs at or downstream of the EWPCF's or the MWRP's headworks, including at the CWRF and the EOO, in violation of Discharge Prohibition III.A or Discharge Prohibition III.B of this Order. A spill may include a discharge of treated or untreated wastewater, or material other than treated or untreated wastewater that causes, may cause, or is caused by significant operational failure, and/or endangers or may endanger human health or the environment. The term "spill" as used in this section of the Order does not include sanitary sewer overflows from the sewage collection system that are reportable under separate WDRs. (See section VI.C.5.d of this Order for more information.)

ii. The Discharger shall maintain a Spill Prevention Plan (SPP) and a Spill Response Plan (SRP) for the Facilities, including the EOO, in an up-to-date condition and shall amend the SPP/SRP whenever there is a change (e.g., in the design, construction, operation, or maintenance of the sewerage system or sewerage facilities) which materially affects the potential for spills and the response required for each potential spill. The Discharger shall review and amend the SPP/SRP as appropriate after each spill from the Facilities and/or EOO. The SPP/SRP and any amendments thereto shall be subject to the approval of the San Diego Water Board and shall be modified as directed by the San Diego Water Board. The Discharger shall submit the SPP/SRP and any amendments thereto to the San Diego Water Board upon request of the San Diego Water Board. The Discharger shall ensure that the up-to-date SPP/SRP is readily available to the Facilities personnel at all times and that the sewerage system personnel are familiar with it.

b. Spill Reporting Requirements

The Discharger shall report spills, as defined in section VI.C.2.a.i above, in accordance with the following procedures:

i. If a spill results in a discharge of treated or untreated wastewater that is equal to or exceeds 1,000 gallons, and/or results in a discharge to a drainage channel and/or surface water, or results in a discharge to a storm drain that was not fully captured and returned to the sanitary sewer system, the Discharger shall:

(a) Report the spill to the San Diego Water Board by email at SanDiego@waterboards.ca.gov within 24 hours from the time the Discharger becomes aware of the spill. If email communication is not possible, report the spill by telephone (619-516-1990) within 24 hours from the time the Discharger becomes aware of the spill. The report shall include a description of the spill and its cause; the spill material; the duration of the spill including exact dates and times; the estimated spill volume and its destination; if the spill has not been terminated, the anticipated time it is expected to continue; and steps taken or planned to reduce and/or eliminate the spill.

(b) Submit a written report by email at SanDiego@waterboards.ca.gov, as well as any additional pertinent information, to the San Diego Water Board no later than five days from the time the Discharger becomes aware of the spill. The written report must be signed and certified as required by section V of the Standards Provisions (Attachment D).

(c) The San Diego Water Board may waive the above-required written report under this provision on a case-by-case basis if an oral report has been received within 24 hours.

ii. If a spill results in a discharge of treated or untreated wastewater less than 1,000 gallons and the discharge does not reach a drainage channel or surface waters, or results in a discharge to a storm drain that was fully captured and returned to the wastewater treatment facility, the Discharger is not required to notify the San Diego Water Board within 24 hours, or provide a 5-day written report.

iii. For spills of material other than treated or untreated wastewater that cause, may cause, or are caused by significant operational failure, and/or endangers or may endanger human health or the environment, the Discharger shall:

(a) Notify the San Diego Water Board by email at SanDiego@waterboards.ca.gov within 24 hours from the time the Discharger becomes aware of the spill. If email communication is not possible, report the spill by telephone (619-516-1990) within 24 hours from the time the Discharger becomes aware of the spill. The report shall include a description of the spill and its cause; the spill material; the duration of the spill including exact dates and times; the estimated spill volume and its destination; if the spill has not been terminated, the anticipated time it is expected to continue; and steps taken or planned to reduce and/or eliminate the spill.

(b) Submit a written report by email at SanDiego@waterboards.ca.gov, as well as any additional pertinent information, to the San Diego Water Board no later than five days from the time the Discharger becomes aware of the spill. The written report must be signed and certified as required by section V of the Standards Provisions (Attachment D).

(c) The San Diego Water Board may waive the above-required written report under this provision on a case-by-case basis if the email or oral report has been received within 24 hours.

iv. For all spills, the Discharger shall include a detailed summary of spills in the monthly Self-Monitoring Report (SMR) for the month in which the spill occurred.

If no spills occurred during the calendar month, the Discharger shall report no spills in the monthly SMR for that calendar month.

v. The spill reporting requirements contained in this Order do not relieve the Discharger of responsibilities to report spills to other agencies, such as the California Office of Emergency Services and the County of San Diego Department of Environmental Health Services.

3. Best Management Practices and Pollution Prevention

Pollutant Minimization Program (PMP) - Reporting protocols in the MRP (Attachment E) describe sample results that are to be reported as Detected, But Not Quantified (DNQ) or Not Detected (ND). Definitions for a reported Minimum Level (ML) and Method Detection Limit (MDL) are provided in the Ocean Plan and in Abbreviation and Definitions (Attachment A). These reporting protocols and definitions are used in determining the need to conduct a PMP, as follows:

a. The Discharger shall develop and conduct a PMP as further described below when there is evidence (e.g., sample results reported as DNQ when the effluent limitation is less than the MDL, sample results from analytical methods more sensitive than those methods required by this Order, presence of whole effluent toxicity (WET), health advisories for fish consumption, results of benthic or aquatic organism tissue sampling) that a pollutant is present in the effluent above an effluent limitation and either:

i. The concentration of the pollutant is reported as DNQ and the effluent limitation is less than the reported ML; or

ii. The concentration of the pollutant is reported as ND and the effluent limitation is less than the MDL.

The goal of the PMP shall be to reduce all potential sources of a pollutant through pollutant minimization (control) strategies, including pollution prevention measures as appropriate, to maintain the effluent concentration at or below the effluent limitation. Pollution prevention measures may be particularly appropriate for persistent bioaccumulative priority pollutants where there is evidence that beneficial uses are being impacted. The San Diego Water Board may consider cost-effectiveness when establishing the requirements of a PMP. The completion and implementation of a Pollution Prevention Plan (PPP), if required pursuant to Water Code section 13263.3(d), shall be considered as fulfilling the PMP requirements.

b. The PMP shall include, but not be limited to, the following actions and submittals acceptable to the San Diego Water Board:

i. An annual review and semi-annual monitoring of potential sources of the reportable pollutant(s), which may include fish tissue monitoring and other bio-uptake sampling;

ii. Quarterly monitoring for the reportable pollutant(s) in the influent to the wastewater treatment system;

iii. Submittal of a control strategy designed to proceed toward the goal of maintaining concentrations of the reportable pollutant(s) in the effluent at or below the effluent limitation;

iv. Implementation of appropriate cost-effective control measures for the reportable pollutant(s), consistent with the control strategy; and

v. An annual status report that shall be sent to the San Diego Water Board including:

(a) All PMP monitoring results for the previous year;

(b) A list of potential sources of the reportable pollutant(s);

(c) A summary of all actions undertaken pursuant to the control strategy; and

(d) A description of actions to be taken in the following year.

4. Construction, Operation and Maintenance Specifications

a. All proposed new treatment facilities and expansions of existing treatment facilities shall be completely constructed and operable prior to initiation of the discharge from the new or expanded facilities. The Discharger shall submit a certification report for each new treatment facility, expansion of an existing treatment facility, and design capacity re-ratings, prepared by the design engineer. For design capacity re-ratings, the certification report shall be prepared by the engineer who evaluated the treatment facility design capacity. The signature and engineering license number of the engineer preparing the certification report shall be affixed to the report. If reasonable, the certification report shall be submitted prior to beginning construction of new treatment facilities or expansions of existing treatment facilities.

i. The certification report shall:

(a) Identify the design capacity of the treatment facility, including the daily and 30-day design capacity;

(b) Certify the adequacy of each component of the treatment facility; and

(c) Contain a requirement-by-requirement analysis, based on acceptable engineering practices, of the process and physical design of the facility to ensure compliance with this Order.

ii. The Discharger shall not initiate a discharge from a treatment facility at a daily flow rate in excess of its previously approved design capacity until:

(a) The certification report is received by the San Diego Water Board,

(b) The San Diego Water Board has received written notification of completion of construction (new or expanded treatment facilities only),

(c) An inspection of the facility has been made by the San Diego Water Board or its designated representatives (new or expanded treatment facilities only), and

(d) The San Diego Water Board has provided the Discharger with written authorization to initiate discharge from a new or expanded treatment facility or at a daily flow rate in excess of its previously approved design capacity.

b. The Facilities shall be protected against a 100-year storm event as defined by the San Diego County Flood Control District (FCD).

c. The Facilities shall be protected against erosion, overland runoff, and other impacts resulting from a 100-year, 24-hour storm event as defined by the San Diego County FCD.

d. The Facilities shall be protected against regional impacts due to climate change (e.g., sea level rise and floods).

e. The Discharger shall provide and maintain in good working order a sufficient alternate power source(s) to assure that, in the event of the loss, reduction, or failure of electrical power, the Facilities are in compliance with the terms and conditions of this Order. In addition to a sufficient alternate power source(s), backup systems may also include auxiliary power generators, retention storage capacity, emergency operation procedures, and other contingencies to ensure continuous operation of all critical devices and systems used in the conveyance, storage, treatment, and recycling of municipal wastewater in the event of the loss, reduction, or failure of electrical power. All equipment shall be located to minimize failure due to moisture, liquid spray, flooding, sea level rise, and other physical phenomena. The alternate power source(s) shall be designed to permit inspection and maintenance and shall provide for periodic testing.

5. Special Provisions for Publicly-Owned Treatment Works (POTWs)

a. **Ensuring Adequate Treatment Plant Capacity**

Four years prior to reaching POTW design capacity, the Discharger shall submit a Treatment Plant Capacity Report to the San Diego Water Board showing how flow volumes will be prevented from exceeding existing capacity or how capacity will be increased. A notification and copy of the report shall be sent to appropriate local elected officials, local permitting agencies, and the press. The required technical report shall be reviewed, approved, and jointly submitted by all planning and building departments having jurisdiction in the area served by the POTW. Opportunities for public participation and involvement are required during the preparation and development of the technical report. The report shall be accompanied by a statement outlining how interested persons were involved in the preparation of the technical report.

b. **Pretreatment Program**

i. The Discharger shall be responsible for the performance of all pretreatment requirements contained in 40 CFR part 403, including any subsequent revisions in 40 CFR part 403. Where 40 CFR part 403 or subsequent revisions place mandatory actions upon the Discharger but do not specify a timetable for completion, the Discharger shall complete the mandatory actions within six months of the issuance date of this Order, or the effective date of the revisions to 40 CFR part 403, whichever comes later. For violations of pretreatment requirements, the Discharger shall be subject to enforcement actions, penalties, fines, and other remedies imposed by the USEPA and/or the San Diego Water Board, as provided in the CWA and/or the Water Code.

ii. The Discharger shall implement and enforce its approved pretreatment program, and all subsequent revisions, which are hereby made enforceable conditions of this Order. The Discharger shall enforce the requirements promulgated pursuant to sections 307(b), 307 (c), 307 (d), and 402 (b) of the CWA with timely, appropriate, and effective enforcement actions. The Discharger shall cause industrial users subject to federal categorical standards to achieve compliance no later than the date specified in those requirements, or in the case of a new industrial user, upon commencement of the discharge.

iii. The Discharger shall perform the pretreatment functions required by 40 CFR part 403, including, but not limited to:

(a) Implement the necessary legal authorities as required by 40 CFR section 403.8(f)(1);

(b) Enforce the pretreatment requirements under 40 CFR sections 403.5 and 403.6;

(c) Implement the programmatic functions as required by 40 CFR section 403.8 (f)(2); and

(d) Provide the requisite funding and personnel to implement the pretreatment program, as required by 40 CFR section 403.8 (f) (3).

iv. By March 1 of each year, the Discharger shall submit an annual pretreatment report to the USEPA by email (R9Pretreatment@epa.gov), to the San Diego Water Board via the State Water Board's California Integrated Water Quality System (CIWQS) program website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/), and the San Diego County Department of Environmental Health Services, Hazardous Materials Division, describing its pretreatment activities over the previous calendar year. In the event the Discharger is not in compliance with any condition or requirement of this Order, or any pretreatment compliance inspection/audit requirements, the Discharger shall include the reasons for noncompliance and state how and when it will comply with such conditions and requirements. The annual pretreatment report shall contain, but not be limited to, the following information:

(a) A summary of analytical results from representative flow-proportioned 24-hour composite sampling of the Discharger's influent and effluent for those pollutants known or suspected to be discharged by industrial users that the USEPA has identified under section 307 (d) of the CWA. This will include an annual full priority pollutant scan. Wastewater sampling and analysis shall be performed in accordance with the minimum frequency of analysis required by the MRP of this Order (Attachment E). The Discharger shall also provide influent and effluent monitoring data for non-priority pollutants, which the Discharger believes may be causing or contributing to interference or pass through. The Discharger is not required to sample and analyze for asbestos. Sludge sampling and analysis is addressed in the section VI.C.5.c of this Order. Wastewater sampling and analysis shall be performed in accordance with 40 CFR part 136.

(b) A discussion of upset, interference, or pass through, if any, at the EWPCF and the MWRP, which the Discharger knows or suspects were caused by nondomestic users of the POTW system. The discussion shall include the reasons why the incidents occurred, any corrective actions taken, and, if known, the name and address of the responsible nondomestic user(s). The discussion shall also include a review of the applicable local pollutant limitations to determine whether any additional limitations or changes to existing limitations are necessary to prevent pass-through, interference, or noncompliance with sludge disposal requirements.

(c) The Discharger shall characterize the compliance status of each Significant Industrial User (SIU) by providing a list or table for the following:

(1) Name of SIU and category, if subject to categorical standards;

(2) Type of wastewater treatment or control processes in place;

(3) Number of samples taken by SIU during the year;

(4) Number of samples and inspections by Discharger during the year;

(5) For an SIU subject to discharge requirements for total toxic organics, whether all required certifications were provided;

(6) A list of pretreatment standards (categorical or local) violated during the year, or any other violations;

(7) Industries in significant non-compliance (SNC) as defined at 40 CFR section 403.12(f)(2)(vii), at any time during the year;

(8) A summary of enforcement actions or any other actions taken against SIUs during the year. Describe the type of action, final compliance date, and the amount of fines and/or penalties collected, if any. Describe any proposed actions for bringing SIUs into compliance; and

(9) The name(s) of any SIU(s) required to submit a baseline monitoring report and any SIUs currently discharging under a baseline monitoring report.

(d) A brief description of any programs the Discharger implements to reduce pollutants from industrial users not classified as SIUs.

(e) A brief description of any significant changes in operating the pretreatment program which differ from the previous year, including, but not limited to, changes in the program's administrative structure, local limits, monitoring program, legal authority, enforcement policy, funding, and staffing levels;

(f) A summary of the annual pretreatment program budget, including the cost of pretreatment program functions and equipment purchases;

(g) A summary of activities to involve and inform the public of the pretreatment program, including a copy of the newspaper notice, if any, required by 40 CFR section 403.8 (f) (2) (vii);

(h) A description of any changes in sludge disposal methods; and

(i) A discussion of any concerns not described elsewhere in the annual pretreatment report.

v. The Discharger shall provide a written technical evaluation of the need to revise local limits under 40 CFR section 403.5(c)(1) following permit reissuance (40 CFR section 122.44(j)(2)(ii)).

vi. The Discharger shall continue with its implementation of a Non-Industrial Source Control Program (Program), consisting of a public education program designed to minimize the entrance of non-industrial toxic pollutants and pesticides into the sanitary sewer system. The Program shall be reviewed periodically and addressed in the annual pretreatment report required under section VI.C.5.c.iv.

c. **Sludge (Biosolids) Disposal Requirements**

i. General Requirements

(a) All biosolids generated by the Discharger during the treatment of wastewater shall be used or disposed of in compliance with applicable portions of: 40 CFR part 503-for biosolids that are land applied, placed on a surface disposal site (dedicated land disposal site, monofill, or sludge-only parcel at a municipal landfill), or incinerated; 40 CFR part 258-for biosolids disposed of in a municipal solid waste landfill (with other materials); and 40 CFR part 257-for all biosolids use and disposal practices not covered under 40 CFR parts 258 or 503.

Requirements for biosolids that are applied for the purpose of enhancing plant growth or for land reclamation are set forth in 40 CFR part 503, subpart B (land application). Requirements for biosolids that are placed on land for the purpose of disposal are set forth in 40 CFR part 503, subpart C (surface disposal).

The Discharger shall take all reasonable steps to ensure that all biosolids produced at the EWPCF and the MWRP are used or disposed of in accordance with these rules, whether the Discharger uses or disposes of the biosolids itself, or transfers their biosolids to another party for further treatment, use, or disposal. The Discharger is responsible for informing subsequent preparers, appliers, and disposers of requirements they must meet under these rules.

(b) The Discharger shall take all reasonable steps to prevent or minimize any biosolids use or disposal which has a likelihood of adversely affecting human health or the environment.

(c) No biosolids shall be allowed to enter wetlands or other waters of the U.S.

(d) Biosolids treatment, storage, use, or disposal shall not contaminate groundwater.

(e) Biosolids treatment, storage, use, or disposal shall not create a nuisance condition such as objectionable odors or flies.

(f) The Discharger shall take all reasonable steps to ensure that haulers transporting biosolids offsite for treatment, storage, use, or disposal are contractually required to take all necessary measures to keep the biosolids contained. Trucks hauling biosolids that are not classified Class A with respect to pathogens, as defined at 40 CFR section 503.32(a), shall be cleaned as necessary after loading and after unloading, so as to have no biosolids on the exterior of the truck, or wheels. Trucks hauling biosolids that are not Class A shall be tarped. All haulers must have and implement spill clean-up procedures. Trucks hauling biosolids that are not Class A shall not be used for hauling food or feed crops after unloading the biosolids unless the Discharger submits a hauling description, to be approved by USEPA, describing how trucks will be thoroughly cleaned prior to adding food or feed.

(g) If biosolids are stored for over two years from the time they are generated, the Discharger must ensure compliance with all requirements for surface disposal under 40 CFR part 503, subpart C, or must submit a written

notification to USEPA, State Water Board, and San Diego Water Board with the information specified under 40 CFR section 503.20(b), demonstrating the need for longer temporary storage. During storage of any length for non-Class A biosolids, whether on the EWPCF or the MWRP site or offsite, adequate procedures must be taken to restrict access by the public and domestic animals.

(h) Any biosolids treatment, disposal, or storage site shall have facilities adequate to divert surface runoff from adjacent areas, to protect the site boundaries from erosion, and to prevent any conditions that would cause drainage from the materials to escape from the site. Adequate protection is defined as protection from at least a 100-year storm event and the highest tidal stage which may occur.

(i) There shall be adequate screening at the EWPCF and the MWRP headworks and/or at the biosolids treatment units to ensure that all pieces of metal, plastic, glass, and other inert objects with a diameter greater than 3/4 inches are removed.

ii. Inspection and Entry

The USEPA, San Diego Water Board, State Water Board, or an authorized representative thereof, upon the presentation of credentials, shall be allowed by the Discharger directly, or through contractual arrangements with their biosolids management contractors, to:

(a) Enter upon all premises where biosolids produced by the Discharger are treated, stored, used, or disposed of, by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal;

(b) Have access to and copy any records that must be kept by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal, under the conditions of this Order or 40 CFR part 503; and

(c) Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations used in biosolids treatment, storage, use, or disposal by either the Discharger or another party to whom the Discharger transfers biosolids for further treatment, storage, use, or disposal.

iii. Monitoring

Biosolids shall be monitored for the following constituents, at the frequency stipulated in Table 1 of 40 CFR section 503.16:

- arsenic,
- cadmium,
- chromium,
- copper,
- lead,
- mercury,
- molybdenum,
- nickel,
- selenium,

- zinc, and
- total solids.

If biosolids are removed for use or disposal on a routine basis, sampling should be scheduled at regular intervals throughout the year. If biosolids are stored for an extended period prior to use or disposal, sampling may occur at regular intervals, or samples of the accumulated stockpile may be collected prior to use or disposal, corresponding to the tons accumulated in the stockpile over that period.

Monitoring shall be conducted using the methods in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), or as otherwise required under 40 CFR section 503.8(b). All results must be reported on a 100% dry weight basis and records of all analyses must state on each page of the analytical results whether the reported results are expressed on an "as-is" or a "100% dry weight" basis.

iv. Pathogen and Vector Control

(a) Prior to land application, the permittee shall demonstrate that biosolids meet Class A or Class B pathogen reduction levels by one of the methods listed under 40 CFR section 503.32.

(b) Prior to disposal on a surface disposal site, the Discharger shall demonstrate that biosolids meet Class B pathogen reduction levels, or ensure that the site is covered at the end of each operating day. If pathogen reduction is demonstrated using a "Process to Further Reduce Pathogens" or one of the "Processes to Significantly Reduce Pathogens," the Discharger shall maintain daily records of the operating parameters used to achieve this reduction. If pathogen reduction is demonstrated by testing for fecal coliform and/or pathogens, samples must be collected at the frequency specified in Table 1 of 40 CFR section 503.16. If Class B is demonstrated using fecal coliform, at least seven grab samples must be collected during each monitoring period and a geometric mean calculated from these samples. The following holding times between sample collection and analysis shall not be exceeded: fecal coliform-24 hours when cooled to four °C; Salmonella spp. bacteria-24 hours when cooled to four °C; enteric viruses-two weeks when frozen; and helminth ova-one month when cooled to four °C.

(c) For biosolids that are land applied or placed on a surface disposal site, the Discharger shall track and keep records of the operational parameters used to achieve the Vector Attraction Reduction requirements under 40 CFR section 503.33(b).

v. Surface Disposal

If biosolids are placed on a surface disposal site (dedicated land disposal site or monofill), a qualified groundwater scientist shall develop a groundwater monitoring program for the site, or shall certify that the placement of biosolids on the site will not contaminate an aquifer.

vi. Landfill Disposal

Biosolids placed in a municipal landfill shall be tested by the Paint Filter Test (Method 9095) at the frequency specified in Table 1 of 40 CFR section 503.16, or more often if necessary to demonstrate that there are no free liquids.

vii. Notifications

The Discharger, either directly or through contractual arrangements with their biosolids management contractors, shall comply with the following notification requirements.

(a) Notification of Noncompliance

The Discharger shall notify USEPA, State Water Board, and San Diego Water Board (for both Discharger and use or disposal site) of any noncompliance with the biosolids within 24 hours, if the noncompliance may endanger health or the environment. For other instances of noncompliance with the biosolids, the Discharger shall notify USEPA, State Water Board, and San Diego Water Board of the noncompliance in writing within five working days of becoming aware of the noncompliance. The Discharger shall require their biosolids management contractors to notify USEPA, State Water Board, and San Diego Water Board of any noncompliance within these same time-frames.

(b) Interstate Notification

If biosolids are shipped to another State or tribal land, the Discharger shall send 60 days prior notice of the shipment to the permitting authorities in the receiving State or tribal land, and the USEPA.

(c) Land Application Notification

Prior to using any biosolids from the EWPCF or the MWRP (other than composted biosolids) at a new or previously unreported site, the Discharger shall notify USEPA, State Water Board, and San Diego Water Board. This notification shall include a description and topographic map of the proposed site(s), names and addresses of the applier and site owner, and a listing of any State or local permits which must be obtained. It shall also include a description of the crops or vegetation to be grown, proposed loading rates, and a determination of agronomic rates.

Within a given monitoring period, if any biosolids do not meet the applicable metals concentration limits specified under 40 CFR section 503.13, then the Discharger (or its contractor) must pre-notify USEPA, State Water Board, and San Diego Water Board, and determine the cumulative metals loading at that site to date, as required by 40 CFR section 503.12.

The Discharger shall notify the applier of all subject requirements under 40 CFR part 503, including the requirement for the applier to certify that management practices, site restrictions, and applicable vector attraction reduction requirements have been met. The Discharger shall require the applier to certify at the end of 38 months, following application of Class B biosolids, that harvesting restrictions in effect for up to 38 months have been met.

(d) Surface Disposal Notification

Prior to disposal at a new or previously unreported site, the Discharger shall notify USEPA, State Water Board, and San Diego Water Board. The notice shall include a description and topographic map of the proposed site, depth to groundwater, whether the site is lined or unlined, site operator and site owner, and any State or local permits. It shall also describe procedures for ensuring grazing and public access restrictions for three years following site closure. The notice shall include a groundwater monitoring plan or description of why groundwater monitoring is not required.

viii. Reporting

The Discharger shall submit an annual biosolids report to the State Water Board's California Integrated Water Quality System (CIWQS) program website (http://www.waterboards.ca.gov/water_issues/programs/ciwqs/), to the USEPA Biosolids Coordinator (CDX NeT electronic reporting system), and, if applicable, to the Arizona Department of Environmental Quality Biosolids Program Coordinator by February 19 of each year for the period covering the previous calendar year. The report shall include:

(a) The amount of biosolids generated that year, in dry metric tons, and the amount accumulated from previous years.

(b) Results of all pollutant monitoring required under section VI.C.5.d.iii of this Order. Results must be reported on a 100% dry weight basis.

(c) Demonstrations of pathogen and vector attraction reduction methods, as required under 40 CFR sections 503.17 and 503.27, and certifications.

(d) Names, mailing addresses, and street addresses of persons who received biosolids for storage, further treatment, disposal in a municipal landfill, or other use or disposal method not covered above, and volumes delivered to each.

(e) The following information must be submitted by the Discharger, unless the Discharger requires its biosolids management contractors to report this information directly to the USEPA Biosolids Coordinator:

(1) For land application sites:

- Locations of land application sites (with field names and numbers) used that calendar year, size of each field applied to, applier, and site owner;
- Volumes applied to each field (in wet tons and dry metric tons), nitrogen applied, and calculated plant available nitrogen;
- Crops planted, dates of planting and harvesting;
- For biosolids exceeding 40 CFR section 503.13 Table 3 metals concentrations, the locations of sites where the biosolids were applied and cumulative metals loading at the sites to date;
- Certifications of management practices at 40 CFR section 503.14; and
- Certifications of site restrictions at 40 CFR section 503.32(b)(5).

(2) For surface disposal sites:

- Locations of sites, site operator and site owner, size of parcel on which biosolids were disposed;
- Results of any required groundwater monitoring;
- Certifications of management practices at 40 CFR section 503.24; and
- For closed sites, the date of site closure and certifications of management practices for three years following site closure.

ix. All reports shall be submitted to:

State Water Board's CIWQS program website
(http://www.waterboards.ca.gov/water_issues/programs/ciwqs/)

Regional Biosolids Coordinator
U.S. Environmental Protection Agency
EPA's CDX NeT electronic reporting system

If applicable,
Biosolids Program Coordinator
Arizona Department of Environmental Quality
Mail Code: 5415B-1
1110 West Washington Street
Phoenix, AZ 85007

d. **Sewage Collection System**

The Discharger's member agencies are subject to the requirements of, and must comply with State Water Board Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems* (Statewide General SSO Order), including monitoring and reporting requirements as amended by State Water Board Order WQ 2013-0058-EXEC and any subsequent amendment/reissuance order. The Discharger's member agencies are also subject to the requirements of, and must comply with the San Diego Water Board Order No. R9-2007-0005, *Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region* (Regional General SSO Order), and any subsequent amendment/reissuance order.

Regardless of the coverage obtained under Order No. 2006-0003-DWQ or Order No. R9-2007-0005, the Discharger's member agencies' collection system is part of the treatment system that is subject to this Order. As such, pursuant to federal regulations, the Discharger's member agencies must report any noncompliance (40 CFR sections 122.44(1)(6) and (7)), properly operate and maintain its collection system [40 CFR section 122.41(e)], and mitigate or prevent any discharge from the collection system in violation of this Order [40 CFR section 122.41(d)].

e. **Resource Recovery from Anaerobically Digestible Material**

If the Discharger plans to receive hauled-in anaerobically digestible material for injection into an anaerobic digester, the Discharger shall notify the San Diego Water Board and develop and implement Standard Operating Procedures (SOPs) for this activity. The SOPs shall be developed prior to receiving hauled-in anaerobically digestible material. The SOPs shall address material handling, including unloading, screening, or other processing prior to anaerobic digestion; transportation; spill prevention; and spill response. In addition, the SOPs shall address avoidance of the

introduction of materials that could cause interference, pass-through, or upset of the treatment processes; avoidance of prohibited material; vector control; odor control; operation and maintenance; and the disposition of any solid waste segregated from introduction to the digester. The Discharger shall train its staff on the SOPs and shall maintain records for a minimum of five years for each load received, describing the hauler, waste type, and quantity received. In addition, the Discharger shall maintain records for a minimum of five years for the disposition, location, and quantity of cumulative pre-digestion-segregated solid waste hauled offsite.

6. Other Special Provisions – Not Applicable

7. Compliance Schedules – Not Applicable

VII. COMPLIANCE DETERMINATION

Compliance with the effluent limitations contained in section IV of this Order will be determined as specified below:

A. Compliance with Average Monthly Effluent Limitation (AMEL)

If the average of daily discharges over a calendar month exceeds the AMEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that month for that parameter (e.g., resulting in 31 days of noncompliance in a 31-day month). The average of daily discharges over the calendar month that exceeds the AMEL for a parameter will be considered out of compliance for the month only. If only a single sample is taken during the calendar month and the analytical result for that sample exceeds the AMEL, the Discharger will be considered out of compliance for that calendar month. For any one calendar month during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar month.

B. Compliance with Average Weekly Effluent Limitation (AWEL)

If the average of daily discharges over a calendar week (Sunday through Saturday) exceeds the AWEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that week for that parameter, resulting in seven days of noncompliance. The average of daily discharges over the calendar week that exceeds the AWEL for a parameter will be considered out of compliance for that week only. If only a single sample is taken during the calendar week and the analytical result for that sample exceeds the AWEL, the Discharger will be considered out of compliance for that calendar week. For any one calendar week during which no sample (daily discharge) is taken, no compliance determination can be made for that calendar week.

C. Compliance with Maximum Daily Effluent Limitation (MDEL)

The MDEL shall apply to flow weighted 24-hour composite samples, or grab samples, as specified in the MRP (Attachment E). If a daily discharge exceeds the MDEL for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for that parameter for that one day only within the reporting period. For any one day during which no sample is taken, no compliance determination can be made for that day.

D. Compliance with Instantaneous Minimum Effluent Limitation

The instantaneous minimum effluent concentration limitation shall apply to grab sample determinations. If the analytical result of a single grab sample is lower than the instantaneous minimum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken

within a calendar day that both are lower than the instantaneous minimum effluent limitation would result in two instances of noncompliance with the instantaneous minimum effluent limitation).

E. Compliance with Instantaneous Maximum Effluent Limitation

The instantaneous maximum effluent concentration limitation shall apply to grab sample determinations. If the analytical result of a single grab sample is higher than the instantaneous maximum effluent limitation for a parameter, a violation will be flagged and the Discharger will be considered out of compliance for that parameter for that single sample. Non-compliance for each sample will be considered separately (e.g., the results of two grab samples taken within a calendar day that both exceed the instantaneous maximum effluent limitation would result in two instances of noncompliance with the instantaneous maximum effluent limitation).

F. Compliance with 6-Month Median Effluent Limitation

If the median of daily discharges over any 180-day period exceeds the 6-month median effluent limitation for a given parameter, an alleged violation will be flagged and the Discharger will be considered out of compliance for each day of that 180-day period for that parameter. The next assessment of compliance will occur after the next sample is taken. If only a single sample is taken during a given 180-day period and the analytical result for that sample exceeds the 6-month median, the Discharger will be considered out of compliance for the 180-day period. For any 180-day period during which no sample is taken, no compliance determination can be made for the 6-month median limitation.

G. Mass and Concentration Limitations

Compliance with mass and concentration effluent limitations for the same parameter shall be determined separately with their respective limitations. When the concentration of a constituent in an effluent sample is determined to be ND or DNQ, the corresponding MER determined from that sample concentration shall also be reported as "ND" or "DNQ."

H. Percent Removal

Compliance with percent removal requirements for average monthly percent removal of $CBOD_5$ and TSS shall be determined separately for each wastewater treatment facility discharging through an outfall. For each wastewater treatment facility, the monthly average percent removal is the average of the calculated daily discharge percent removals only for days on which the constituent concentration is monitored in both the influent and effluent of the wastewater treatment facility at the locations specified in the MRP (Attachment E) within a calendar month.

The percent removal for each day shall be calculated according to the following equation:

$$\text{Daily discharge percent removal} = \frac{\textit{Influent concentration} - \textit{Effluent concentration}}{\textit{Influent concentration}} \times 100\%$$

I. Ocean Plan Provisions for Table 1 Constituents

Sufficient sampling and analysis shall be required to determine compliance with the effluent limitation.

1. Compliance with Single-constituent Effluent Limitations

   The Discharger shall be deemed out of compliance with an effluent limitation or discharge specification if the concentration of the constituent in the monitoring sample is

greater than the effluent limitation or discharge specification and greater than or equal to the Minimum Level (ML).

2. Compliance with Effluent Limitations Expressed as a Sum of Several Constituents

   The Discharger is out of compliance with an effluent limitation that applies to the sum of a group of chemicals (e.g., PCBs) if the sum of the individual pollutant concentrations is greater than the effluent limitation. Individual pollutants of the group will be considered to have a concentration of zero if the constituent is reported as ND or DNQ.

3. Multiple Sample Data Reduction

   The concentration of the pollutant in the effluent may be estimated from the result of a single sample analysis or by a measure of central tendency (arithmetic mean, geometric mean, median, etc.) of multiple sample analyses when all sample results are quantifiable (i.e., greater than or equal to the reported ML). When one or more sample results are reported as ND or DNQ, the central tendency concentration of the pollutant shall be the median (middle) value of the multiple samples. If, in an even number of samples, one or both of the middle values is ND or DNQ, the median will be the lower of the two middle values.

4. Mass Emission Rate (MER)

   The MER, in lbs/day, shall be obtained from the following calculation for any calendar day:

   MER (lbs/day) = 8.34 x Q x C

   In which Q and C are the flow rate in MGD and the constituent concentration in mg/L, respectively, and 8.34 is a conversion factor (lbs/gallon of water). If a composite sample is taken, then C is the concentration measured in the composite sample and Q is the average flow rate occurring during the period over which the samples are composited.

J. Bacterial Standards and Analysis

1. The geometric mean used for determining compliance with bacterial standards is calculated with the following equation:

   Geometric Mean = $(C_1 \times C_2 \times \ldots \times C_n)^{1/n}$

   Where n is the number of days samples were collected during the period and C is the concentration of bacteria (CFU/100 mL) found on each day of sampling.

2. For all bacterial analyses, sample dilutions should be performed so the range of values extends from 2 to 16,000 CFU (colony-forming units). The detection methods used for each analysis shall be reported with the results of the analysis. Detection methods used for coliforms (total and fecal) shall be those listed in 40 CFR part 136 or any improved method determined by the San Diego Water Board (and approved by USEPA) to be appropriate. Detection methods used for enterococcus shall be those presented in USEPA publication USEPA 600/4-85/076, *Test Methods for Escherichia coli and Enterococci in Water by Membrane Filter Procedure*, listed under 40 CFR part 136, and any other method approved by the San Diego Water Board.

K. Single Operational Upset (SOU)

A SOU that leads to simultaneous violations or more than one pollutant parameter shall be treated as a single violation and limits the Discharger's liability in accordance with the following conditions:

1. A SOU is broadly defined as a single unusual event that temporarily disrupts the usually satisfactory operation of a system in such a way that it results in violation of multiple pollutant parameters.
2. A Discharger may assert SOU to limit liability only for those violations which the Discharger submitted notice of the upset as required in section I.H of Attachment D.
3. For purposes outside of Water Code section 13385(h) and (i), determination of compliance and civil liability (including any more specific definition of SOU), the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations, shall be in accordance with the USEPA Memorandum *Issuance of Guidance Interpreting Single Operational Upset* (September 27, 1989).
4. For purposes of Water Code section 13385(h) and (i), determination of compliance and civil liability (including any more specific definition of SOU), the requirements for Dischargers to assert the SOU limitation of liability, and the manner of counting violations shall be in accordance with Water Code section 13385(f)(2).

L. Chronic Toxicity

The discharge is subject to determination of "Pass" or "Fail" from a chronic toxicity test using the Test of Significant Toxicity (TST) statistical t-test approach described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (EPA 833-R-10-003, 2010), Appendix A, Figure A-1 and Table A-1, and Appendix B, Table B-1. The null hypothesis (Ho) for the TST statistical approach is:

Mean discharge "in-stream" waste concentration (IWC) response ≤0.75 × Mean control response.

A test result that rejects this null hypothesis is reported as "Pass." A test result that does not reject this null hypothesis is reported as "Fail." This is a t-test (formally Student's t-test), a statistical analysis comparing two sets of replicate observations—in the case of WET test, only two test concentrations (i.e., a control and IWC). The purpose of this statistical test is to determine if the means of the two sets of observations are different (i.e., if the IWC or receiving water concentration differs from the control (the test result is "Pass" or "Fail")). The Welch's t-test employed by the TST statistical approach is an adaptation of Student's t-test and is used with two samples having unequal variances.

The MDEL for chronic toxicity is exceeded and a violation will be flagged when a chronic toxicity test, analyzed using the TST statistical approach, results in "Fail."

The MDEL for chronic toxicity is set at the IWC for the discharge (0.69% effluent[1]) and expressed in units of the TST statistical approach ("Pass" or "Fail"). All monitoring for the MDEL for chronic toxicity shall be reported using the IWC effluent concentration and negative control, expressed in units of the TST. The TST hypothesis (see above) is statistically analyzed using the IWC and a negative control. Effluent toxicity tests shall be run using *Short-Term Methods for Estimating the Chronic Toxicity of Effluent and Receiving Waters to West Coast Marine Estuarine Organisms* (EPA/600/R-95/136, 1995). The San Diego Water Board's review of reported toxicity test results will include review of concentration-response patterns as appropriate (see section IV.C.5 of the Fact Sheet (Attachment F)). As described in the laboratory audit directives to the San Jose Creek Water Quality Laboratory from the State Water Board dated August 07, 2014, and from USEPA dated December 24, 2013, the Percent Minimum Significant Difference (PMSD) criteria only apply to compliance reporting for the no-observed-effect-concentration (NOEC) and the sublethal statistical endpoints of the

[1] IWC = 1/minimum initial dilution factor (Dm) = 1/144 = 0.0069 = 0.69%

NOEC, and therefore are not used to interpret TST results. SOPs used by the toxicity testing laboratory to identify and report valid, invalid, anomalous, or inconclusive effluent (and receiving water) toxicity test measurement results from the TST statistical approach, including those that incorporate a consideration of concentration-response patterns, must be submitted to the San Diego Water Board (40 CFR section 122.41(h)). The San Diego Water Board will make a final determination as to whether a toxicity test result is valid, and may consult with the Discharger, USEPA, the State Water Board's Quality Assurance (QA) Officer, or the State Water Board, Division of Drinking Water (DDW) Environmental Laboratory Accreditation Program (ELAP) as needed.

ATTACHMENT A – DEFINITIONS

Part 1. – Abbreviations

Abbreviation	Definition
40 CFR	Title 40 of the Code of Federal Regulations
AMEL[1]	Average Monthly Effluent Limitation
AQUA	Aquaculture
ASBS[1]	Areas of Special Biological Significance
AUV	Autonomous Underwater Vehicle
AWEL[1]	Average Weekly Effluent Limitation
Basin Plan	*Water Quality Control Plan for the San Diego Basin*
BIOL	Preservation of Biological Habitats of Special Significance
BOD_5	Biochemical Oxygen Demand (5-Day @ 20°C)
BPJ	Best Professional Judgement
BRI	Benthic Response Index
°C	Degrees Celsius
$CBOD_5$	Carbonaceous Biochemical Oxygen Demand (5-Day @ 20°C)
CCAP	Climate Change Action Plan
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CFU	Colony Forming Units
CIWQS	California Integrated Water Quality System
COMM	Commercial and Sport Fishing
CSM	Conceptual Site Model
CTD	Conductivity-Temperature-Depth
CWA	Clean Water Act
CWRF	Carlsbad Water Reclamation Facility
DAF	Dissolved Air Flotation
DDT[1]	Dichlorodiphenyltrichloroethane
DDW	State Water Board, Division of Drinking Water
Discharger	Encina Wastewater Authority
DMR[1]	Discharge Monitoring Report
DNQ[1]	Detected, But Not Quantified
EC25	Effects Concentration at 25 Percent
ELAP	Environmental Laboratory Accreditation Program
EOO	Encina Ocean Outfall
eSMR	Electronic Self-Monitoring Reports
EWA	Encina Wastewater Authority
EWPCF	Encina Water Pollution Control Facility
°F	Degrees Fahrenheit
Facilities	The Encina Water Pollution Control Facility (EWPCF), the Meadowlark Water Reclamation Plant (MWRP), the Carlsbad Water Reclamation Facility (CWRF), the land outfall for the MWRP, and the Encina Ocean Outfall (EOO)
FCD	Flood Control District
GPS	Global Positioning System

Abbreviation	Definition
GWRP	Gafner Water Reclamation Plant
HCH[1]	Hexachlorocyclohexane
Ho	Hypothesis
IND	Industrial Service Supply
IU	Industrial User
IWC[1]	"In-Stream" Waste Concentration
IWS	Industrial Waste Survey
lbs/day	Pounds per Day
LC	Lethal Concentration
LC 50	Percent Waste Giving 50 Percent Survival of Test Organisms
LWD	Leucadia Wastewater District
MAR	Marine Habitat
MCRT	Mean Cell Residence Time
MDEL[1]	Maximum Daily Effluent Limitation
MDL[1]	Method Detection Limit
MEC	Maximum Effluent Concentration
MER	Mass Emission Rate
MF	Microfiltration
mg/kg	Milligram per Kilogram
mg/L	Milligram per Liter
MGD	Million Gallons per Day
MIGR	Migration of Aquatic Organisms
ML[1]	Minimum Level
ml	Milliliter
ml/L	Milliliter per Liter
MRP	Monitoring and Reporting Program
MWRP	Meadowlark Water Reclamation Plant
NAV	Navigation
ND[1]	Not Detected
ng/kg	Nanogram per Kilogram
NOAA's	National Oceanic and Atmospheric Administration's
NOEC	No Observed Effect Concentration
NOEL	No Observed Effect Level
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Unit
Ocean Plan	*Water Quality Control Plan for Ocean Waters of California, California Ocean Plan*
PAHs[1]	Polynuclear Aromatic Hydrocarbons
PCBs[1]	Polychlorinated Biphenyls
pCi/L	Picocuries per Liter
PMP[1]	Pollutant Minimization Program
PMSD	Percent Minimum Significant Difference
POTWs	Publicly-Owned Treatment Works
PPP	Pollution Prevention Plan
ppt	Parts per Thousand
psu	Practical Salinity Unit
QA	Quality Assurance
QAPP	Quality Assurance Project Plan

Abbreviation	Definition
QC	Quality Control
RARE	Rare, Threatened, or Endangered Species
REC-1	Contact Water Recreation
REC-2	Non-Contact Water Recreation
RCRA	Resource Conservation and Recovery Act
Regional General SSO Order	California Regional Water Quality Control Board Region 9, San Diego Region Order No. R9-2007-0005, *Waste Discharge Requirements for Sewage Collection Agencies in the San Diego Region*
RL	Reporting Level
RO	Reverse Osmosis
ROTV	Remotely Operated Towed Vehicle
ROWD	Report of Waste Discharge
RPA	Reasonable Potential Analysis
San Diego Water Board	California Regional Water Quality Control Board, San Diego Region
SCCWRP	Southern California Coastal Water Research Project
SHELL	Shellfish Harvesting
SIC	Standard Industrial Classification
SIUs	Significant Industrial Users
SMR	Self-Monitoring Report
SOPs	Standard Operating Procedures
SOU	Single Operational Upset
SPP	Spill Prevention Plan
SPWN	Spawning, Reproduction, and/or Early Development
SRP	Spill Response Plan
SSMPs	Sanitary Sewer Management Plans
SSO[1]	Sanitary Sewer Overflow
State Water Board	State Water Resources Control Board
Statewide General SSO Order	State Water Board Order No. 2006-0003-DWQ, *Statewide General Waste Discharge Requirements for Sanitary Sewer Systems*
SWRP	Shadowridge Water Reclamation Plant
TAC	Test Acceptability Criteria
TBELs	Technology-Based Effluent Limitations
TCDD[1]	Tetrachlorodibenzodioxin
TIE[1]	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TRE[1]	Toxicity Reduction Evaluation
TSD	Technical Support Document
TSS	Total Suspended Solids
TST	Test of Significant Toxicity
TUc[1]	Toxic Units Chronic
UF	Ultrafiltration
µg	Microgram
µg/kg	Microgram per Kilogram
µg/L	Microgram per Liter
UM3	USEPA Modeling Application Visual Plumes
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency
U.S.	United States

Abbreviation	Definition
Water Code	California Water Code
WDRs	Waste Discharge Requirements
WET	Whole Effluent Toxicity
WILD	Wildlife Habitat
WQBELs	Water Quality-Based Effluent Limitations
ZID	Zone of Initial Dilution

[1] See Part 2 of Attachment A (Glossary of Common Terms) for further definition.

30-day average
The arithmetic mean of pollutant parameter values of samples collected in a period of 30 consecutive days.

Acute Toxicity
a. Acute Toxicity (TUa)
Expressed in Toxic Units Acute (TUa)

$$TUa = \frac{100}{96\text{-hr LC } 50\%}$$

b. Lethal Concentration 50% (LC 50)
LC 50 (percent waste giving 50% survival of test organisms) shall be determined by static or continuous flow bioassay techniques using standard marine test species as specified in Ocean Plan Appendix III. If specific identifiable substances in wastewater can be demonstrated by the discharger as being rapidly rendered harmless upon discharge to the marine environment, but not as a result of dilution, the LC 50 may be determined after the test samples are adjusted to remove the influence of those substances.

When it is not possible to measure the 96-hour LC 50 due to greater than 50 percent survival of the test species in 100 percent waste, the toxicity concentration shall be calculated by the expression:

$$TUa = \frac{\log (100 - S)}{1.7}$$

where:

S = percentage survival in 100% waste. If S > 99, TUa shall be reported as zero.

Anaerobically Digestible Material
Inedible kitchen grease as defined in section 19216 of the Food and Agricultural Code and food material as defined in title 14, division 7, chapter 3.1, article 1, section 17582(a)(20) of the CCR.

Antidegradation
Policies which ensure protection of water quality for a particular body where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters.

Areas of Special Biological Significance (ASBS)
Those areas designated by the State Water Board as ocean areas requiring protection of species or biological communities to the extent that alteration of natural water quality is undesirable. All Areas of Special Biological Significance are also classified as a subset of State Water Quality Protection Areas.

Average Monthly Effluent Limitation (AMEL)
The highest allowable average of daily discharges over a calendar month, calculated as the sum of all daily discharges measured during a calendar month divided by the number of daily discharges measured during that month.

Average Weekly Effluent Limitation (AWEL)
The highest allowable average of daily discharges over a calendar week (Sunday through Saturday), calculated as the sum of all daily discharges measured during a calendar week divided by the number of daily discharges measured during that week.

Beneficial Uses
The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals. "Beneficial Uses" of the waters of the State that may be protected against include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. In the Basin Plan, existing beneficial uses are uses that were attained in the surface or ground water on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. "Beneficial Uses" are equivalent to "Designated Uses" under federal law. [Water Code section 13050(f)].

Bioaccumulation
The accumulation of contaminants in the tissues of organisms through any route, including respiration, ingestion, or direct contact with contaminated water, sediment, food, or dredged material.

Biosolids
Nutrient-rich organic materials resulting from the treatment of sewage sludge. When treated and processed, sewage sludge becomes biosolids which can be safely recycled and applied as fertilizer to sustainably improve and maintain productive soils and stimulate plant growth.

Bypass
The intentional diversion of waste streams from any portion of a treatment facility. (40 CFR section 122.41(m)(1)(i).)

Chlordane
Shall mean the sum of chlordane-alpha, chlordane-gamma, chlordene-alpha, chlordene-gamma, nonachlor-alpha, nonachlor-gamma, and oxychlordane.

Chronic Toxicity
This parameter shall be used to measure the acceptability of waters for supporting a healthy marine biota until improved methods are developed to evaluate biological response.

a. Chronic Toxicity (TUc)
   Expressed as Toxic Units Chronic (TUc)

$$TUc = \frac{100}{NOEL}$$

b. No Observed Effect Level (NOEL)

The NOEL is expressed as the maximum percent effluent or receiving water that causes no observable effect on a test organism, as determined by the result of a critical life stage toxicity test listed in Ocean Plan Appendix II.

Chlorinated Phenolics
The sum of 4-chloro-3-methylphenol, 2-chlorophenol, pentachlorophenol, 2,4,5-trichlorophenol, and 2,4,6-trichlorophenol.